

File 348:EUROPEAN PATENTS 1978-2003/Apr W04

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File 349:PCT FULLTEXT 1979-2002/UB=20030515,UT=20030508

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Set	Items	Description
S1	196167	KEY OR CIPHER??? ? OR CYPHER??? ? OR ALGORITHM??? ?
S2	5347	(SESSION? ? OR SUBSESSION? OR DATA OR CATEGORY OR ONE()TIM- E) (1W)S1
S3	9583	(PUBLIC OR TWO) (1W)S1 OR TWO()KEY? ? OR KEY()PAIR? ?
S4	593	ASYMMETRIC(1W)S1
S5	2383	(MASTER OR GROUP OR COMMON) (1W)S1
S6	4639	S2(5N) (DATA OR INFORMATION OR PACKET? ? OR MESSAGE? ? OR F- ILE OR FILES OR CONTENT)
S7	83	S2(S)S3:S4(S)S5
S8	669	S2(20N)S3:S4
S9	61	S8(S)S5
S10	12	S7/TI,AB,CM
S11	5099	IC='H04L-009'
S12	10	S7(S)S4
S13	219	S2(3N) (COPY??? ? OR COPIE? ? OR DUPLICAT? OR REPLICAT? OR - REPRODUC????? ? OR FACSIMILE? OR MIRROR? ? OR CLONE? ? OR CLO- NING? OR VERSION? ?)
S14	4	S7(S)S13
S15	10	S13(20N)S5
S16	29	S10 OR S12 OR S14:S15
S17	29	IDPAT (sorted in duplicate/non-duplicate order)
S18	29	IDPAT (primary/non-duplicate records only)

? t18/5,k/all

18/5,K/1 (Item 1 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01552360

Information-processing with cryptographic processing

Informationsverarbeitung mit Verschlüsselungsverarbeitung

Traitement des informations avec traitement cryptographique

PATENT ASSIGNEE:

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LEGAL REPRESENTATIVE:

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PATENT (CC, No, Kind, Date): EP 1291867 A2 030312 (Basic)

APPLICATION (CC, No, Date): EP 2002255309 020730;

PRIORITY (CC, No, Date): JP 2001239145 010807

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;
IE; IT; LI; LU; MC; NL; PT; SE; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G11B-020/00; H04L-009/00; G06F-001/00

ABSTRACT EP 1291867 A2

When contents are copied or transferred from a first
information-processing apparatus to a second information-processing

apparatus, the contents are stored onto a recording medium of the second information-processing apparatus as they are without decryption and re-encryption. In addition, the first information-processing apparatus also supplies a title-unique key to the second information-processing apparatus to be used by the second information-processing apparatus for generating a title key, which is also stored in the recording medium. In a content reproduction process carried out by the second information-processing apparatus, a title-unique key is generated from its own keys such as a master, media and LSI keys in accordance with a title-unique-key generation sequence based on the stored title key, and is used for decrypting the contents. As a result, it is possible to provide a processing configuration for efficiently performing an operation to copy contents from an information-processing apparatus to another and an operation to store distributed contents onto a recording medium of a recipient apparatus.

ABSTRACT WORD COUNT: 163

NOTE:

Figure number on first page: 16

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 030312 A2 Published application without search report

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200311	1434
SPEC A	(English)	200311	40420
Total word count - document A			41854
Total word count - document B			0
Total word count - documents A + B			41854

...SPECIFICATION MK stored in the memory employed in the recording & reproduction apparatus is (i+1) and **master key** MK of generation (i-2) is required for **reproducing** certain **data**, **master key** K(i-2)master is found by the recording & reproduction apparatus by applying the unidirectional...

18/5,K/2 (Item 2 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01516132

Method and apparatus for symmetric encryption/decryption of recorded data
Verfahren und Vorrichtung zur symmetrischen Verschlüsselung/Entschlüsselung
von aufgezeichneten Daten

Methode et dispositif de cryptage/decryptage symétrique de données
enregistrées

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 1267515 A2 021218 (Basic)

APPLICATION (CC, No, Date): EP 2002078475 010119;

PRIORITY (CC, No, Date): JP 200013322 000121; JP 200015551 000125; JP
200015858 000125; JP 200016029 000125; JP 200016213 000125; JP
200016251 000125; JP 200016292 000125

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR

RELATED PARENT NUMBER(S) - PN (AN):

EP 1195734 (EP 2001901463)

INTERNATIONAL PATENT CLASS: H04L-009/06; H04L-009/32

ABSTRACT EP 1267515 A2

A record reproducing player and save data processing methods capable of
insuring security of save data are provided. Save data is stored in a
recording device, encrypted with the use of a program's individual
encryption key, e.g., a content key, or a save data encryption key
created based the content key, and when reproducing the save data a
decryption process is conducted on it with the use of the save data
decryption key particular to the program. Furthermore, it is made
possible to create save data encryption keys based on a variety of
restriction information, such as performing the storing and reproducing
of the save data by conducting encryption and decryption on the save data
with the save data encryption keys and decryption keys created with the
use of a record reproducing player's individual key or a user's password.

ABSTRACT WORD COUNT: 140

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 021218 A2 Published application without search report

Assignee: 030108 A2 Transfer of rights to new applicant: Sony
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Sony Corporation (214031) 6-7-35 Kitashinagawa,
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Change: 030305 A2 Inventor information changed: 20030114

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200251	6596
SPEC A	(English)	200251	73431
Total word count - document A			80027
Total word count - document B			0
Total word count - documents A + B			80027

...SPECIFICATION owned by the individual that has issued the public key,
the document encrypted with the **public key** can be decrypted only by
individuals having the secret key. A representative **public key**
cryptosystem is the RSA (Rivest-Shamir-Adleman) encryption.

The use of such a cryptosystem enables...

...using a content decrypting key, that is, the decryption key in order to
obtain and **reproduce** decrypted **data** from the encrypted data.

According to the conventional example of configuration shown in Fig. 1

...an apparatus-specific key, which is specific to a data processing
apparatus and a system **common key**, which is common to other **data**

processing apparatuses.

Furthermore, here is encryption processing of content data as a method of limiting...according to the present invention is characterized in that the data processing apparatus has a **common signature key** common to all entities of a system for executing a data verifying process and an apparatus-specific signature **key** specific to each apparatus that executes a data verifying process.

Further, one embodiment of the...check value, the collation is not established, control is executed such as to suspend the **reproduction** process executed in the **reproduction** process section.

Further, one embodiment of the data processing method according to the present invention...individual keys necessary to execute the encryption processing based on the master keys and identification **data** of the apparatus or data subject to encryption processing.

According to another embodiment of the...

...medium or communication medium, characterized in that the storage section stores a distribution key generation **master key** MKdis for generating a distribution key Kdis used for encryption processing of the transfer data and the encryption processing section executes encryption processing based on the distribution key generation **master key** MKdis stored in the storage section and a data identifier, which is identification data of the transfer data and generates the transfer **data** distribution **key** Kdis.

Furthermore, according to another embodiment of the data processing apparatus of the present invention...generation processing that generates an individual key necessary to execute encryption processing based on the **master key** and identification data of the apparatus or **data** subject to encryption processing is encryption processing that uses at least part of identification data...

...encryption processing on the contents data, and the contents data utilization apparatus generates a contents **data** distribution **key** based on the distribution key generation **master key** and contents identifier, which is an identifier of supplied contents data and executes decryption processing...

18/5,K/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01504244

DATA ACCESS MANAGEMENT SYSTEM AND MANAGEMENT METHOD USING ACCESS CONTROL
TICKET

DATENZUGRIFFSMANAGEMENTSYSTEM UND MANAGEMENTVERFAHREN MIT EINEM
ZUGRIFFSSTEUERTICKET

SYSTEME DE GESTION D'ACCES AUX DONNEES ET PROCEDE DE GESTION UTILISANT UN
BILLET DE COMMANDE D'ACCES

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 1303075 A1 030416 (Basic)
WO 2002076013 020926
APPLICATION (CC, No, Date): EP 2002702791 020307; WO 2002JP2113 020307
PRIORITY (CC, No, Date): JP 200173353 010315
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04L-009/00; G09C-001/00; G06F-012/14;
G06F-015/00; G06F-017/60; G06F-019/00; G06F-017/00; G06K-019/00

ABSTRACT EP 1303075 A1

To provide a data access management system that enables access control management for data files stored in a memory of a device. The system manages data access processing performed by an access unit for a memory-loaded device, and issues a service permission ticket (SPT), which serves as an access control ticket in which an access mode to be accepted for the access unit, such as a reader/writer, is set. The memory-loaded device receives the service permission ticket (SPT) from the access unit, and performs processing according to the access mode indicated in the service permission ticket (SPT). The service permission tickets (SPTs) in which access modes to be accepted for the access units are set are individually issued according to the access units. Accordingly, various modes of access according to the access units can be executed.

ABSTRACT WORD COUNT: 137

NOTE:

Figure number on first page: 0001

LEGAL STATUS (Type, Pub Date, Kind, Text):

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Application: 021120 A1 International application entering European phase
Application: 030416 A1 Published application with search report
Examination: 030416 A1 Date of request for examination: 20021031
LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200316	8394
SPEC A	(English)	200316	79434
Total word count - document A			87828
Total word count - document B			0
Total word count - documents A + B			87828

...SPECIFICATION processing using a service permission ticket (SPT) in the system of the present invention when **common** -key authentication and **common** - **key** ticket verification are performed.

Fig. 92 is a diagram illustrating file access processing using a...

...Partition Manager Configuration

A5. Ticket User (Reader/Writer as Device Access Unit) Configuration
A6. Public **Key** Certificate
A7. Storage Data in Device Memory
A7.1. Device-Unique-Information/Device-Partition- Information...

...Device Manager Management Processing

B3.1. Device Registration processing by Device Manager
B3.2. Public **Key** Certificate Issuing Processing under Device Manager Control

, or **common - key** authentication information and a **session key**, which are obtained by the partition authentication or the device authentication executed with said access...

...according to claim 88, wherein said memory-loaded device generates an authentication table in which **public - key** authentication information and a **session key**, or **common - key** authentication information and a **session key**, which are obtained by the partition authentication or the device authentication executed with said access...

18/5,K/4 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01504243

MEMORY ACCESS CONTROL SYSTEM AND MANAGEMENT METHOD USING ACCESS CONTROL TICKET

VORRICHTUNG ZUR SPEICHERZUGRIFFSTEUERUNG UND VERWALTUNGSVERFAHREN UNTER VERWENDUNG EINES SPEICHERZUGRIFFSTICKETS

SYSTEME DE CONTROLE D'ACCES A LA MEMOIRE ET PROCEDE DE GESTION FAISANT APPEL A UN TICKET DE CONTROLE D'ACCES

PATENT ASSIGNEE:

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ISHIBASHI, Yoshihito, c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome, Shinagawa-ku,, Tokyo 141-0001, (JP)

SHIRAI, Taizo, c/o SONY CORPORATION, 7-35, Kitashinagawa 6-chome, Shinagawa-ku,, Tokyo 141-0001, (JP)

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PATENT (CC, No, Kind, Date): EP 1276271 A1 030115 (Basic)
WO 2002076012 020926

APPLICATION (CC, No, Date): EP 2002702790 020307; WO 2002JP2112 020307

PRIORITY (CC, No, Date): JP 200173352 010315

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-009/00; G09C-001/00; G06F-012/14; G06F-015/00; G06F-017/60; G06F-019/00; G06K-017/00; G06K-019/00

ABSTRACT EP 1276271 A1

To provide a memory access control system in which partitions, which are divided memory areas generated in a device, can be independently managed. In response to access to the divided memory areas, which are a plurality of partitions, various types of access control tickets are issued under the management of each device or partition manager, and processing based on rules indicated in each ticket is performed in a memory-loaded device. A memory has a partition, which serves as a memory area managed by the partition manager, and a device manager management area managed by the device manager. Accordingly, partition authentication and device authentication can be executed according to either a public-key designation method or a common-key designation method.

ABSTRACT WORD COUNT: 119

NOTE:

Figure number on first page: 0001

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 021120 A1 International application. (Art. 158(1))

Application: 021120 A1 International application entering European phase

Application: 030115 A1 Published application with search report

Examination: 030115 A1 Date of request for examination: 20021111

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

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CLAIMS A	(English)	200303	3051
SPEC A	(English)	200303	73024
Total word count - document A			76075
Total word count - document B			0
Total word count - documents A + B			76075

...SPECIFICATION processing using a service permission ticket (SPT) in the system of the present invention when **common - key** authentication and **common - key** ticket verification are performed.

Fig. 92 is a diagram illustrating file access processing using a service permission ticket (SPT) in the system of the present invention when **common - key** authentication and public- **key** ticket verification are performed.

Fig. 93 is a flowchart illustrating data updating processing using a

...

18/5,K/5 (Item 5 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01330100

DATA AUTHENTICATION SYSTEM

DATEN-IDENTIFIZIERUNGS-SYSTEM

SYSTEME D'AUTHENTIFICATION DE DONNEES

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AKISHITA, Toru, Sony Corporation, 7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo 141-0001, (JP)

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PATENT (CC, No, Kind, Date): EP 1195734 A1 020410 (Basic)
WO 200154099 010726

APPLICATION (CC, No, Date): EP 2001901463 010119; WO 2001JP346 010119

PRIORITY (CC, No, Date): JP 200013322 000121; JP 200015551 000125; JP

200015858 000125; JP 200016029 000125; JP 200016213 000125; JP

200016251 000125; JP 200016292 000125

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
RELATED DIVISIONAL NUMBER(S) - PN (AN):
(EP 2002078475)
INTERNATIONAL PATENT CLASS: G09C-001/00; H04L-009/32

ABSTRACT EP 1195734 A1

A data processing apparatus a data processing method efficiently ascertain that data are valid, prevent encryption processing key data from leaking, eliminate illegal use of contents data, restrict contents utilization, apply a different plurality of data formats to contents and efficiently execute reproduction processing of compressed data. The verification process of partial data is executed by collating the integrity partial data as check values for a combination of partial data of a content, and the verification process of the entirety of the combination of partial data is executed by collating partial-integrity-check-value-verifying integrity check values that verify the combination of the partial integrity check values. Master keys to generate individual keys necessary for a process of such as data encryption are stored in the storage section and keys are generated as required. An illegal device list is stored in the header information of a content and referred to when data is used. Keys specific to a data processing apparatus and common keys are stored and the keys are selectively used according to the content use restriction. Plural content blocks are coupled, and at least a part of the content blocks is applied to an encryption process by an encryption key Kcon, then encryption key data that is the encryption key Kcon encrypted by an encryption key Kdis is stored in the header section. A content data is made of compression data and an expansion processing program or a combination of types of compression programs and the reproducing apparatus can determine an expansion program applicable to a compressed content.

ABSTRACT WORD COUNT: 258

NOTE:

Figure number on first page: 28

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010919 A1 International application. (Art. 158(1))
Application: 010919 A1 International application entering European phase
Application: 020410 A1 Published application with search report
Examination: 020410 A1 Date of request for examination: 20011026
Change: 021016 A1 Application number of divisional application (Article 76) changed: 20020829

LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200215	13797
SPEC A	(English)	200215	73409
Total word count - document A			87206
Total word count - document B			0
Total word count - documents A + B			87206

...SPECIFICATION means 20, the user obtains encrypted data from the storage means 20 and causes the **reproduction** process section 14 of the reproduction means 10 to execute the decryption process using a the original content data will be possible, so that a large number of **copied** content **data** available to information apparatuses such as game apparatuses or PCs may be created or tampered...arithmetic operation process on decrypted data obtained by decrypting the encrypted data, executes a signature **key** -applied cryptography process on data on arithmetic operation results obtained by the arithmetic operation, to... data and the encryption processing section executes encryption processing

based on the distribution key generation **master key** MKdis stored in the storage section and a data identifier, which is identification data of the transfer data and generates the transfer **data distribution key** Kdis.

Furthermore, according to another embodiment of the data processing apparatus of the present invention...aspect of the present invention is a data processing system configured by a plurality of **data** processing apparatuses, characterized in that each of the plurality of data processing apparatuses has a **common master key** to generate a key used for encryption processing of at least one of data encryption...

...processing and signature processing and each of the plurality of data processing apparatuses generates a **common individual key** necessary to execute the encryption processing based on the **master key** and identification data of the apparatus or data subject to encryption processing.

Furthermore, according to...

...the contents data providing apparatus and contents data utilization apparatus have a distribution key generation **master key** to generate a contents **data distribution key** used for encryption processing of circulation contents data between the contents data providing apparatus and contents data utilization apparatus, the contents data providing apparatus generates a contents **data distribution key** based on the distribution key generation **master key** and contents identifier, which is an identifier of supplied contents data and executes encryption processing on the contents data, and the contents data utilization apparatus generates a contents **data distribution key** based on the distribution **key** generation **master key** and contents identifier, which is an identifier of supplied contents data and executes decryption processing...utilizes the contents data, characterized in that the contents data providing apparatus generates a contents **data distribution key** based on a distribution key generation **master key** for generating a contents **data distribution key** used for encryption processing on contents data and a contents identifier, which is the identifier...

...encryption processing on the contents data, and the contents data utilization apparatus generates a contents **data distribution key** based on the distribution key generation **master key** and a contents identifier, which is the identifier of the provided contents data and executes...

...data processing apparatus A, a step of generating the same contents key as the contents **key** by different data processing apparatus B based on the same the contents key generation **master key** as that of the **data** processing apparatus A and the apparatus identifier of the data processing apparatus A, and a...executed by the encryption processing section.

A fifteenth aspect of the present invention is a **data** processing method that processes contents data supplied from a storage medium or communication medium, comprising...

...comprises a step of executing encryption processing applying an illegal device list check value generation **key** to illegal device list configuration data to be verified and generating illegal device list check...contents data, a control section that executes control over the encryption processing section, a system **common key** used for encryption processing in the encryption processing section, which is common to other data...

other data processing apparatuses using the contents data or an apparatus-specific key...processing configuration in CBC mode of the encryption processing section is a configuration in which **common key** encryption processing is applied a plurality of times only to part of a message string...the present invention is characterized in that in the decryption processing configuration in CBC mode, **common key** encryption processing is applied a plurality of times only to part of a message string...

...characterized in that the encryption processing configuration in CBC mode is a configuration in which **common key** encryption processing is applied a plurality of times only to part of a message string...an apparatus-specific key, which is specific to the data processing apparatus and a system **common key**, which is common to other data processing apparatuses using contents data, making it possible to process contents according to contents utilization restrictions. The data processing apparatus selectively uses these **two keys** according to contents utilization restrictions. For example, in the case where the contents are only...

...value for the contents data is generated and collation processing is performed using the system **common key**. It is possible to decrypt and reproduce the encrypted data only when the collation is...

18/5,K/6 (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01307658

Broadcasting encrypted messages using session keys

Verteilung von verschlüsselten Nachrichten unter Verwendung von Sitzungsschlüsseln

Diffusion de messages chiffrés utilisant des clés de session

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 1119132 A2 010725 (Basic)
EP 1119132 A3 030102

APPLICATION (CC, No, Date): EP 2001101074 010118;

PRIORITY (CC, No, Date): US 487863 000119

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-009/08

ABSTRACT EP 1119132 A2

A system and method for sending encrypted information to multiple recipients is provided. Information such as a message or data to be sent to multiple recipients is encrypted using a selected session key, thereby generating a first encrypted message. The session key is then encrypted with each of a plurality of unique secrets respectively associated with

the multiple recipients to thereby generate a plurality of encrypted session keys. The encrypted message and the plurality of encrypted session keys are combined in a second encrypted message, which is transmitted to the multiple recipients. Each of the multiple recipients searches the encrypted message for an encrypted session key which was encrypted with its associated unique secret, decrypts the encrypted session key to retrieve the session key and decrypts an encrypted message using the retrieved session key.

ABSTRACT WORD COUNT: 135

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010725 A2 Published application without search report

Examination: 010725 A2 Date of request for examination: 20010216

Search Report: 030102 A3 Separate publication of the search report

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200130	2039
SPEC A	(English)	200130	3926
Total word count - document A			5965
Total word count - document B			0
Total word count - documents A + B			5965

...SPECIFICATION customers would be able to acquire the session key by monitoring the list of encrypted **versions** of the **session key**, identifying the **version** encrypted using their **master key**, then decrypting the value. Hence, the show could then be broadcast once in encrypted form...the encrypted message. A suitable identifier is required so that the recipient can identify which **version** of the **session key** should be decrypted with its **master key**.

The present invention also works when used with a public key scheme. In a public...

18/5,K/7 (Item 7 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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01276898

CONTENTS MANAGEMENT SYSTEM, DEVICE, METHOD, AND PROGRAM STORAGE MEDIUM
INHALTSVERWALTUNGSSYSTEM, VORRICHTUNG, VERFAHREN UND PROGRAMMSPEICHERMEDIUM
SYSTEME, DISPOSITIF, PROCEDE ET SUPPORT DE PROGRAMME POUR LA GESTION DE
CONTENUS

PATENT ASSIGNEE:

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Lane, London EC4A 1DA, (GB)
 PATENT (CC, No, Kind, Date): EP 1128598 A1 010829 (Basic)
 WO 200119017 010315
 APPLICATION (CC, No, Date): EP 2000956997 000907; WO 2000JP6089 000907
 PRIORITY (CC, No, Date): JP 99253660 990907; JP 99253661 990907; JP
 99253662 990907; JP 99253663 990907; JP 99260638 990914; JP 99264082
 990917; JP 99265866 990920
 DESIGNATED STATES: DE; FR; GB
 EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
 INTERNATIONAL PATENT CLASS: H04L-009/32; G06F-015/00; H04N-005/91;
 G11B-020/10; G10K-015/04; H04N-007/167
 CITED REFERENCES (WO A):
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 JP 2041051 A
 JP 11185381 A
 JP 7182837 A
 WO 9627155 A3
 KINEO MATSUI: 'Internet saishin technology: The 13rd digital contents no
 chiteki shoyuiken wo mamoru denshi sukashi' INTERNET MAGAZINE no. 37,
 1998, pages 352 - 355
 FUMITADA TAKAHASHI: 'Digital shingou shori: 'Denshi sukashi' ga
 multimedia jidai wo mamoru; Chosakuken hogo gijutsu no yuuryoku kouho;
 Chosakubutsu no fusei riyou boushi ni myoushu ari: Denshi sukashi de
 copy wo yokusei' NIKKEI ELECTRONICS no. 683, 1997, pages 99 - 107
 ASANO: 'Technology ga ippai; Digital contents wo mamoru digital sukashi'
 ASCII vol. 21, no. 9, 1997, pages 210 - 215
 TARO YOSHIO: 'Kogata memory card de ongaku chosakuken wo mamoru' NIKKEI
 ELECTRONICS no. 739, 22 March 1999, pages 49 - 53
 FUMITADA TAKAHASHI, TARO YOSHIO: 'Ongaku haishin mattanashi; Seibi isogu
 chosakuken hogo gijutsu sasaeru gijutsu jitsuyouki no haishin system;
 chosakuken kanti ga kagi nigiru' NIKKEI ELECTRONICS no. 738, 08 March
 1999, pages 94 - 98
 TETSUO NAKAGAWA ET AL.: 'Digital contents ryuutsu gijutsu' MITSUBISHI
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 SHOKO MOTOIKE, MASAKI KIYONO: 'DVD wo mochiita contents ryuutsu service'
 MATSUSHITA TECHNICAL JOURNAL vol. 44, no. 5, 1998, pages 25 - 33
 NAOJI USUKI ET AL.: '5C Digital transmission content protection; IEEE1394
 bus no chosakuken hogo houshiki' EIZOU MEDIA GAKKAI GIJUTSU HOUHOKU
 vol. 22, no. 65, 1998, pages 37 - 42 (CE'98-14)
 DAISUKE IMAIZUMI: 'Ongaku haishin souchi to shitenno internet' COMPUTOPIA
 vol. 34, no. 393, 01 June 1999, pages 96 - 97
 DIGITAL TRANSMISSION CONTENT PROTECTION SPECIFICATION, REVISION 1.0,
 INFORMATIONAL VERSION 12 April 1999,
 HIRONOBU YAMAMOTO ET AL.: 'Chosakuken wo hogo shita ongaku haishin
 platform' NTT R&D vol. 48, no. 10, 10 October 1999, pages 762 - 769;

ABSTRACT EP 1128598 A1

An information receiving apparatus receives identification information and encrypted identification information and makes a comparison between them to allow prevention of illegal utilization of contents data. Also, a data storage apparatus can record contents data encrypted by a content key and the content key so that the contents data can be reproduced on other apparatuses to improve versatility. Moreover, a management apparatus can manage the contents data in the data storage apparatus to allow other apparatuses to utilize it. And also, an information regulating apparatus can verify a signature on available data to prevent illegal utilization of the contents data. Furthermore, the data storage apparatus can store the content key, its handling policies, the contents data encrypted by the content key and its license conditions information

so as to safely provide the contents data. In addition, an information recording apparatus can select favorite contents data and store it on the data storage apparatus. Furthermore, the information receiving apparatus can prevent utilization of provision-prohibited contents data by a provision prohibition list.

ABSTRACT WORD COUNT: 172

NOTE:

Figure number on first page: 0020

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010509 A1 International application. (Art. 158(1))

Application: 010509 A1 International application entering European phase

Application: 010829 A1 Published application with search report

Examination: 010829 A1 Date of request for examination: 20010502

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
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CLAIMS A	(English)	200135	29406
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SPEC A	(English)	200135	83907
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Total word count - document A	113313
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Total word count - document B	0
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Total word count - documents A + B	113313
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...SPECIFICATION a content key by a save key, recording a content key encrypted by a save **key** and the contents data encrypted by the content key on a record medium or reproducing...data received by an information receiving apparatus will be illicitly utilized and preventing the contents **data** from being illicitly utilized.

Also, in the present invention, an information regulating apparatus connected online...

...illegal data and if determined so, prohibiting the information receiving apparatus from utilizing the contents **data** by information regulating apparatus.

Thus, an information provision method can be implemented, which is capable...apparatus, an information provision method and a program storage medium capable of easily providing contents **data** can be implemented.

In addition, the present invention provides, in an data storage apparatus storing predetermined contents **data** sent from an information provision apparatus, the means for receiving a content key and contents ...

...if an information user does not have a contents data receiving apparatus, to record contents **data** with ensured security, and accordingly a data storage apparatus, a data storage method and a...block diagram showing data contents of the equipment.

Figure 19 is a block diagram showing **data** contents held by a record medium.

Figure 20 is a skeleton ...symmetrical key technology.

Figure 52 is a timing chart showing a mutual authentication process using **asymmetrical key** technology.

Figure 53 is a skeleton block diagram showing transmitting operation of accounting information.

Figure...

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00690802

Apparatus for implementing a symmetric block ciphering algorithm without the complementation property

Vorrichtung zur Durchführung eines symmetrischen Blockchiffrierungsalgorithmus ohne die Eigenschaft der Komplementierung

Appareil de mise en oeuvre de l'algorithme de chiffrement symétrique par bloc sans la propriété de complémentarité

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PATENT (CC, No, Kind, Date): EP 660563 A1 950628 (Basic)
EP 660563 B1 010228

APPLICATION (CC, No, Date): EP 94118066 941116;

PRIORITY (CC, No, Date): US 167781 931221

DESIGNATED STATES: DE; ES; FR; GB

INTERNATIONAL PATENT CLASS: H04L-009/06

CITED REFERENCES (EP B):

PROCEEDINGS OF COMPCON '78 - COMPUTER COMMUNICATIONS NETWORKS 5-8
September 1978, Washington DC (US) NEW YORK (US)

D.W.DAVIES & W.L.PRICE 'SECURITY FOR COMPUTER NETWORKS An Introduction to Data Security in Teleprocessing and Electronic Funds Transfer' 1989 ,
JOHN WILEY & SONS , CHICHESTER(GB) * pages 61,64 & 65 * * page 61, line 41 - page 65, line 9 *;

ABSTRACT EP 660563 A1

An implementation of a security algorithm such as DES is provided that overcomes the complementarity weaknesses provided by conventional implementations. In a DES implementation, a cryptographic processor (10) applies the DES algorithm to a data block. The DES processor includes a first input port (14) for receiving the data block (X), a second input port (12) for receiving a cryptographic key (K), and an output port (15) for outputting the data block after encryption. A nonlinear function (20, 22, 24) that does not have complementarity is applied to at least one of the ports. The nonlinear function can comprise a lookup table, which could be advantageously derived from a DES S-Box. (see image in original document)

ABSTRACT WORD COUNT: 118

NOTE:

Figure number on first page: 2

LEGAL STATUS (Type, Pub Date, Kind, Text):

Examination: 000503 A1 Date of dispatch of the first examination report: 20000315

Application: 950628 A1 Published application (A1with Search Report ;A2without Search Report)

Lapse: 020626 B1 Date of lapse of European Patent in a contracting state (Country, date): ES 20010228,

Grant: 010228 B1 Granted patent

Oppn None: 020220 B1 No opposition filed: 20011129

Examination: 951227 A1 Date of filing of request for examination: 951026

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LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB95	502
CLAIMS B	(English)	200109	528
CLAIMS B	(German)	200109	486
CLAIMS B	(French)	200109	544
SPEC A	(English)	EPAB95	2217
SPEC B	(English)	200109	2186
Total word count - document A			2720
Total word count - document B			3744
Total word count - documents A + B			6464

...SPECIFICATION signal. Each descrambler has its unique unit key signal
stored in memory for use in **reproducing** the **common category key**
signal when the descrambler is addressed by its unique encrypted category
key signal. By using...

...SPECIFICATION signal. Each descrambler has its unique unit key signal
stored in memory for use in **reproducing** the **common category key**
signal when the descrambler is addressed by its unique encrypted category
key signal. By using...

18/5,K/9 (Item 9 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00527049

Public key cryptosystem key management based on control vectors.
Schlüsselverwaltung für Geheimübertragungssystem mit öffentlichem Schlüssel
auf Grundlage von Steuervektoren.

Administration de cle pour système cryptographique à cle publique basée sur
des vecteurs de commande.

PATENT ASSIGNEE:

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AT;CH;DE;DK;ES;FR;GB;IT;LI;NL;SE)

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Rohland, William S., 4234 Rotunda Road, Charlotte, NC 28 226, (US)
Wilkins, John D., P.O. Box 8, Somerville, VA 22 739, (US)

LEGAL REPRESENTATIVE:

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PATENT (CC, No, Kind, Date): EP 534419 A2 930331 (Basic)
EP 534419 A3 940629

APPLICATION (CC, No, Date): EP 92116307 920911;

PRIORITY (CC, No, Date): US 766260 910927

DESIGNATED STATES: AT; CH; DE; DK; ES; FR; GB; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: H04L-009/08;

ABSTRACT EP 534419 A2

A data processing system, method and program are disclosed, for managing a public key cryptographic system. The method includes the steps of generating a first public key and a first private key as a first pair in the data processing system, for use with a first public key algorithm and further generating a second public key and a second private key as a second pair in the data processing system, for use with a second public key algorithm. The method then continues by assigning a private control vector for the first private key and the second private key in the data processing system, for defining permitted uses for the first and second private keys. Then the method continues by forming a private key record which includes the first private key and the second private key in the data processing system, and encrypting the private key record under a first master key expression which is a function of the private control vector. The method then forms a private key token which includes the private control vector and the private key record, and stores the private key token in the data processing system.

At a later time, the method receives a first key use request in the data processing system, requiring the first public key algorithm. In response to this, the method continues by accessing the private key token in the data processing system and checking the private control vector to determine if the private key record contains a key having permitted uses which will satisfy the first request. The method then decrypts the private key record under the first master key expression in the data processing system and extracts the first private key from the private key record. The method selects the first public key algorithm in the data processing system for the first key use request and executes the first public key algorithm in the data processing system using the first private key to perform a cryptographic operation to satisfy the first key use request. (see image in original document)

ABSTRACT WORD COUNT: 343

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 930331 A2 Published application (Alwith Search Report
;A2without Search Report)
Change: 930512 A2 Representative (change)
Examination: 930908 A2 Date of filing of request for examination:
930716
Change: 930929 A2 Representative (change)
Search Report: 940629 A3 Separate publication of the European or

International search report

Change: 940921 A2 Representative (change)
Examination: 970611 A2 Date of despatch of first examination report:
970424
Withdrawal: 990602 A2 Date on which the European patent application
was deemed to be withdrawn: 981215

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	3823
SPEC A	(English)	EPABF1	40413
Total word count - document A			44236
Total word count - document B			0
Total word count - documents A + B			44236

- ...SPECIFICATION 728, 4,924,514, which are based on a symmetric key algorithm such as the **Data Encryption Algorithm** (DEA), make use of a key hierarchy wherein keys belonging to a cryptographic device are encrypted with a single **master key** and stored in a key data set. The **master key** is stored in clear form within the cryptographic hardware. The concept of using a single **master key** to encrypt keys stored in a key data set is known as the **master key** concept (see C.H. Meyer and S.M. Matyas, Cryptography--A New Dimension in Computer Data Security, John Wiley & Sons, Inc., New York, 1982.). Until now, the **master key** concept has been applied only to cryptographic systems based on a symmetric key cryptographic algorithm. However, the present invention extends the **master key** concept and teaches how it may be applied to cryptographic systems based on an **asymmetric key** cryptographic algorithm, and more particularly how it may be applied to cryptographic systems incorporating both...
- ...key cryptographic algorithms, generally called hybrid cryptographic systems. The reader will appreciate that in a **public key** based cryptographic system employing (1) an **asymmetric algorithm** or (2) both asymmetric and symmetric algorithms, there is still a need to use many...the set of all binary numbers of their magnitude. When the cryptographic algorithm is an **asymmetric algorithm** such as the RSA algorithm, there are two **keys** PU and PR. In general, if (PU,PR) is a valid **key pair**, then (PU+C,PR+C) is not a valid **key pair** for an arbitrary value C. This is because the PU and PR key values meet...will show how this is accomplished. In hybrid cryptographic systems where both a symmetric and **asymmetric algorithm** are implemented, the public and private keys belonging to the **asymmetric algorithm** can be encrypted with keys belonging to the symmetric key algorithm. In that case, the...
- ...that affect the design choice. For example, the public and private keys belonging to the **asymmetric key algorithm** are typically longer than the keys belonging to the symmetric key algorithm. Also, the possibility ...
- ...varying lengths must be addressed. 512-bit RSA keys are not uncommon, where a DEA **master key** is generally 128 bits. Thus, the CVE and CVD algorithms must be adjusted to permit...
- ...vector and the private key can be used to couple the control vector and the **public key**, and the same method of authenticating the key value can be used. Also, handling the...
- ...private key must be encrypted to ensure that its value does not become

known, the **public key** may also be encrypted to simplify the internal key management design, as then the key...variant key derived from KM, as explained below. If the system master key is an **asymmetric key pair** (PU0,PR0), then PU key record is encrypted with PU0, as explained below. The PU...

...a parameter input to a cryptographic instruction, the PU authenticator is used to validate the **public key** as part of key recovery, before the recovered PU is processed within the cryptographic instruction...

...variant key derived from KM, as explained below. If the system master key is an **asymmetric key pair** (PU0,PR0), then the PR key record is encrypted with PU0, as explained below. The...

...a parameter input to a cryptographic instruction, the PR authenticator is used to validate the **public key** as part of key recovery, before the recovered PR is processed within the cryptographic instruction...

18/5,K/10 (Item 10 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00522867

A hybrid public key algorithm/data encryption algorithm key distribution method based on control vectors

Auf Steuervektoren beruhendes Schlüsselverteilungsverfahren mit hybridem Public-Key/DES-Algorithmus

Procede de distribution de cle base sur des vecteurs de commande et utilisant un algorithme hybride a cle publique/DES

PATENT ASSIGNEE:

International Business Machines Corporation, (200120), Old Orchard Road, Armonk, N.Y. 10504, (US), (applicant designated states: CH;DE;FR;GB;IT;LI;NL;SE)

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PATENT (CC, No, Kind, Date): EP 529261 A2 930303 (Basic)
EP 529261 A3 931118
EP 529261 B1 970212

APPLICATION (CC, No, Date): EP 92111758 920710;

PRIORITY (CC, No, Date): US 748407 910822

DESIGNATED STATES: CH; DE; FR; GB; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: H04L-009/08;

CITED PATENTS (EP A): EP 356065 A; EP 356065 A; EP 356065 A; EP 356065 A;
EP 354770 A; EP 354770 A

CITED REFERENCES (EP A):

ICL TECHNICAL JOURNAL vol. 3, no. 2, November 1982, LONDON pages 175 - 188 R. JONES 'Some techniques for handling encipherment keys'
PATENT ABSTRACTS OF JAPAN vol. 015, no. 340 (E-1105)28 August 1991;

ABSTRACT EP 529261 A2

The patent describes a method and apparatus for securely distributing an initial **Data Encryption Algorithm** (DEA) key-encrypting key by encrypting a key record (consisting of the key-encrypting key and control information associated with that key-encrypting key) using a **public key algorithm** and a **public key** belonging to the intended recipient of the key record. The patent further describes a method and apparatus for securely recovering the distributed key-encrypting key by the recipient by decrypting the received key record using the same **public key algorithm** and private key associated with the **public key** and re-encrypting the key-encrypting key under a key formed by arithmetically combining the recipient's **master key** with a control vector contained in the control information of the received key record. Thus the type and usage attributes assigned by the originator of the key-encrypting key in the form of a control vector are cryptographically coupled to the key-encrypting key such that the recipient may only use the received key-encrypting key in a manner defined by the key originator.

The patent further describes a method and apparatus to improve the integrity of the key distribution process by applying a digital signature to the key record and by including identifying information (i.e., an originator identifier) in the control information of the key record. The integrity of the distribution process is enhanced by verifying the digital signature and originator identifier at the recipient node. (see image in original document)

ABSTRACT WORD COUNT: 239

LEGAL STATUS (Type, Pub Date, Kind, Text):

Lapse:	030212 B1	Date of lapse of European Patent in a contracting state (Country, date): CH 19970212, LI 19970212, FR 19970711, IT 19970212, NL 19970212, SE 19970512,
Application:	930303 A2	Published application (Alwith Search Report ;A2without Search Report)
Change:	930512 A2	Representative (change)
Examination:	930825 A2	Date of filing of request for examination: 930624
Change:	930929 A2	Representative (change)
Search Report:	931118 A3	Separate publication of the European or International search report
Examination:	940309 A2	Date of despatch of first examination report: 940121
Change:	940921 A2	Representative (change)
Grant:	970212 B1	Granted patent
Lapse:	980114 B1	Date of lapse of the European patent in a Contracting State: FR 970711
Lapse:	980121 B1	Date of lapse of the European patent in a Contracting State: CH 970212, LI 970212, FR 970711
Lapse:	980121 B1	Date of lapse of the European patent in a Contracting State: CH 970212, LI 970212, FR 970711
Oppn None:	980204 B1	No opposition filed
Lapse:	980311 B1	Date of lapse of the European patent in a Contracting State: CH 970212, LI 970212, FR 970711, SE 970512
Lapse:	991020 B1	Date of lapse of European Patent in a contracting state (Country, date): CH 19970212, LI 19970212, FR 19970711, IT 19970212, SE 19970512,

LANGUAGE (Publication,Procedural,Application): English; English; English
 FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	4295
CLAIMS B	(English)	EPAB97	3572
CLAIMS B	(German)	EPAB97	3301
CLAIMS B	(French)	EPAB97	4231
SPEC A	(English)	EPABF1	13673
SPEC B	(English)	EPAB97	13700
Total word count - document A			17969
Total word count - document B			24804
Total word count - documents A + B			42773

...ABSTRACT A2

The patent describes a method and apparatus for securely distributing an initial **Data Encryption Algorithm** (DEA) key-encrypting key by encrypting a key record (consisting of the key-encrypting key and control information associated with that key-encrypting key) using a **public key algorithm** and a **public key** belonging to the intended recipient of the key record. The patent further describes a method...

...key-encrypting key by the recipient by decrypting the received key record using the same **public key algorithm** and private key associated with the **public key** and re-encrypting the key-encrypting key under a key formed by arithmetically combining the recipient's **master key** with a control vector contained in the control information of the received key record. Thus...

18/5,K/11 (Item 11 from file: 348)
 DIALOG(R)File 348:EUROPEAN PATENTS
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00472875

System for maintaining scrambling security in a communication network
System zur Bewahrung der Verschlusselungssicherheit eines Nachrichtennetzes
Systeme pour le maintien de la securite du codage dans un reseau de communication

PATENT ASSIGNEE:

GENERAL INSTRUMENT CORPORATION OF DELAWARE, (1783080), 181 West Madison Street, Chicago, Illinois 60602, (US), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)

INVENTOR:

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 Heller, Jerrold A., 4932 Rancho Viejo Drive, Del Mar, California 92014, (US)

LEGAL REPRESENTATIVE:

Hoeger, Stellrecht & Partner (100381), Uhlandstrasse 14 c, 70182 Stuttgart, (DE)

PATENT (CC, No, Kind, Date): EP 485887 A2 920520 (Basic)
 EP 485887 A3 921209
 EP 485887 B1 970806

APPLICATION (CC, No, Date): EP 91118977 911107;

PRIORITY (CC, No, Date): US 614940 901116

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: H04N-007/16;

CITED PATENTS (EP A): EP 127381 A; WO 8806826 A; US 4991208 A; US 5029207 A

CITED REFERENCES (EP A):

IEEE INTERNATIONAL CONFERENCE on CONSUMER ELECTRONICS, 6-8 June, 1990, Rosemont, Illinois, US, pages 316-317; P.J.Y. PERYET: 'Defeating pay-TV pirates with smart cards'

INTERNATIONAL CONFERENCE on SECURE COMMUNICATION SYSTEMS, 22-23 February,

1984, IEE, London , GB, pages 66-69; A.G. MASON: 'A pay-per-view conditional access system for DBS by means of secure over-air credit transmissions';

ABSTRACT EP 485887 A2

A secure communication network serves a plurality of terminals (30, 34, 38) grouped into different security categories. Each terminal includes a replaceable security element (32, 36, 40) containing a security algorithm specific to the security category to which the terminal is assigned. Upon the breach of a particular security version, the security elements in the affected category are replaced with new elements containing a different algorithm. The security elements are relatively low cost, and can be replaced on an as needed or periodic basis to maintain system security. (see image in original document)

ABSTRACT WORD COUNT: 95

LEGAL STATUS (Type, Pub Date, Kind, Text):

Lapse: 20000202 B1 Date of lapse of European Patent in a contracting state (Country, date): GR 19970806, IT 19970806,
Application: 920520 A2 Published application (A1with Search Report ;A2without Search Report)
Search Report: 921209 A3 Separate publication of the European or International search report
Examination: 930428 A2 Date of filing of request for examination: 930227
*Assignee: 940803 A2 Applicant (transfer of rights) (change): GI CORPORATION (1739540) 2200 Byberry Road Hatboro, Pennsylvania 19040 (US) (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)
*Assignee: 940921 A2 Applicant (transfer of rights) (change): GENERAL INSTRUMENT CORPORATION OF DELAWARE (1783080) 181 West Madison Street Chicago, Illinois 60602 (US) (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)
Examination: 950405 A2 Date of despatch of first examination report: 950220
Grant: 970806 B1 Granted patent
Oppn None: 980729 B1 No opposition filed
Lapse: 991020 B1 Date of lapse of European Patent in a contracting state (Country, date): IT 19970806,

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9708W1	1075
CLAIMS B	(German)	9708W1	1060
CLAIMS B	(French)	9708W1	1225
SPEC B	(English)	9708W1	2991
Total word count - document A			0
Total word count - document B			6351
Total word count - documents A + B			6351

...SPECIFICATION from its seeds, which unit key is stored in a secure memory for use in **reproducing** the **common category key** signal when the descrambler is addressed by its unique encrypted category key signal.

As indicated...

18/5,K/12 (Item 12 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.

00467788

Information processing apparatus with replaceable security element
Informationsverarbeitungsgerat mit auswechselbarem Sicherheitselement
Dispositif de traitement d'information avec element de securite remplaceable
PATENT ASSIGNEE:

General Instrument Corporation, (2532981), 101 Tournament Drive, Horsham,
PA 19044, (US), (Proprietor designated states: all)

INVENTOR:

Esserman, James Neil, 3844 Radcliffe Lane, San Diego, California 92122,
(US)

Moroney, Paul, 1249 Avocet Court, Cardiff, California 92007, (US)

LEGAL REPRESENTATIVE:

Hoeger, Stellrecht & Partner (100381), Uhlandstrasse 14 c, 70182
Stuttgart, (DE)

PATENT (CC, No, Kind, Date): EP 471373 A2 920219 (Basic)
EP 471373 A3 920729
EP 471373 B1 991006

APPLICATION (CC, No, Date): EP 91113757 910816;

PRIORITY (CC, No, Date): US 568990 900817

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: H04N-007/167

CITED PATENTS (EP A): WO 8500491 A; WO 8500491 A; GB 2151886 A; GB 2151886
A; EP 194769 A; EP 132401 A; EP 127381 A

CITED PATENTS (EP B): EP 127381 A; EP 132401 A; EP 194769 A; WO 85/00491 A;
GB 2151886 A

ABSTRACT EP 471373 A2

A field upgradeable security system deciphers signals received from a
communication network. An information processor (10) includes a
receptacle for receiving a replaceable security element (12). The
replaceable security element generates a working key (WK) necessary to
the operation of the information processor. The working key is
communicated to the information processor encrypted under a secret key
(A(M)). The information processor decrypts the encrypted working key for
use in deciphering a received communication signal. Additional layers of
encryption (A(C), U(M), U(C)) can be added to the communications between
the information processor and security element to increase the level of
security. (see image in original document)

ABSTRACT WORD COUNT: 107

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Oppn None: 000920 B1 No opposition filed: 20000707

Application: 920219 A2 Published application (A1with Search Report
;A2without Search Report)

Lapse: 030212 B1 Date of lapse of European Patent in a
contracting state (Country, date): AT
19991006, BE 19991006, CH 19991006, LI
19991006, NL 19991006, SE 19991006,

Lapse: 001227 B1 Date of lapse of European Patent in a
contracting state (Country, date): AT
19991006, BE 19991006, CH 19991006, LI
19991006,

Lapse: 001213 B1 Date of lapse of European Patent in a
contracting state (Country, date): BE
19991006, CH 20000111, LI 20000111,

Lapse: 001025 B1 Date of lapse of European Patent in a contracting state (Country, date): BE 19991006,

Lapse: 001220 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 19991006, BE 19991006, CH 20000111, LI 20000111,

Lapse: 020605 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 19991006, BE 19991006, CH 19991006, LI 19991006, SE 19991006,

Search Report: 920729 A3 Separate publication of the European or International search report

Examination: 921202 A2 Date of filing of request for examination: 921006

*Assignee: 940803 A2 Applicant (transfer of rights) (change): GI CORPORATION (1739540) 2200 Byberry Road Hatboro, Pennsylvania 19040 (US) (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)

*Assignee: 940921 A2 Applicant (transfer of rights) (change): GENERAL INSTRUMENT CORPORATION OF DELAWARE (1783080) 181 West Madison Street Chicago, Illinois 60602 (US) (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)

Examination: 950308 A2 Date of despatch of first examination report: 950120

*Assignee: 981021 A2 Applicant (transfer of rights) (change): NextLevel Systems, Inc. (2532980) 101 Tournament Drive Horsham, PA 19044 (US) (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)

*Assignee: 981021 A2 Previous applicant in case of transfer of rights (change): GENERAL INSTRUMENT CORPORATION OF DELAWARE (1783080) 181 West Madison Street Chicago, Illinois 60602 (US) (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)

*Assignee: 981028 A2 Applicant (transfer of rights) (change): General Instrument Corporation (2532981) 101 Tournament Drive Horsham, PA 19044 (US) (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)

*Assignee: 981028 A2 Previous applicant in case of transfer of rights (change): NextLevel Systems, Inc. (2532980) 101 Tournament Drive Horsham, PA 19044 (US) (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)

Grant: 991006 B1 Granted patent

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9940	1704
CLAIMS B	(German)	9940	1516
CLAIMS B	(French)	9940	1945
SPEC B	(English)	9940	4762
Total word count - document A			0
Total word count - document B			9927
Total word count - documents A + B			9927

...SPECIFICATION signal. Each descrambler has its unique unit key signal

stored in memory for use in reproducing the common category key signal when the descrambler is addressed by its unique encrypted category key signal. By using...

18/5,K/13 (Item 13 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00396572

Cryptographic method and apparatus for public key exchange with authentication.

Geheimübertragungsverfahren und Einrichtung zum öffentlichen Schlüsselaustausch mit Authentifizierung.

Procede et dispositif cryptographique d'echange de cle publique avec authentication.

PATENT ASSIGNEE:

TRW INC., (208104), 1900 Richmond Road, Cleveland Ohio 44124, (US),
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INVENTOR:

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Allden, Thomas Stanley et al (27631), A.A. THORNTON & CO. Northumberland
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PATENT (CC, No, Kind, Date): EP 393806 A2 901024 (Basic)
EP 393806 A3 911113

APPLICATION (CC, No, Date): EP 90300115 900105;

PRIORITY (CC, No, Date): US 339555 890417

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS: H04L-009/32; H04L-009/08;

CITED PATENTS (EP A): US 4200770 A

CITED REFERENCES (EP A):

IEEE/IEICE GLOBAL TELECOMMUNICATIONS CONFERENCE 1987, CONFERENCE RECORD,
Tokyo, 15th - 18th November 1987, vol. 1, pages 108-111, IEEE, New
York, US; E. OKAMOTO et al.: "Key distribution system based on
identification information";

ABSTRACT EP 393806 A2

A technique for use in a **public key** exchange cryptographic system, in which two user devices establish a **common session key** by exchanging information over an insecure communication channel, and in which each user can authenticate the identity of the other, without the need for a key distribution center. Each device has a previously stored unique random number X_i , and a previously stored composite quantity that is formed by transforming X_i to Y_i using a transformation of which the inverse is computationally infeasible; then concatenating Y_i with a publicly known device identifier, and digitally signing the quantity. Before a communication session is established, two user devices exchange their signed composite quantities, transform them to unsigned form, and authenticate the identity of the other user. Then each device generates the same **session key** by transforming the received Y value with its own X value. For further security, each device also generates another random number $X(\min)_i$, which is transformed to a corresponding number $Y(\min)_i$. These $Y(\min)_i$ values are also exchanged, and the **session key** is generated in each device, using a transformation that involves the device's own X_i and $X(\min)_i$ numbers and the Y_i and $Y(\min)_i$ numbers received from the other device.

ABSTRACT WORD COUNT: 204

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 901024 A2 Published application (A1with Search Report
;A2without Search Report)
Search Report: 911113 A3 Separate publication of the European or
International search report
Examination: 920701 A2 Date of filing of request for examination:
920501
Examination: 940406 A2 Date of despatch of first examination report:
940216
Refusal: 941228 A2 Date on which the European patent application
was refused: 940812

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	1356
SPEC A	(English)	EPABF1	5968
Total word count - document A			7324
Total word count - document B			0
Total word count - documents A + B			7324

...ABSTRACT A2

A technique for use in a **public key** exchange cryptographic system, in which two user devices establish a **common session key** by exchanging information over an insecure communication channel, and in which each user can authenticate...

...form, and authenticate the identity of the other user. Then each device generates the same **session key** by transforming the received Y value with its own X value. For further security, each...

...corresponding number $Y(\min)i$. These $Y(\min)i$ values are also exchanged, and the **session key** is generated in each device, using a transformation that involves the device's own X_i ...

18/5,K/14 (Item 14 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00141732

Key signal encryption and distribution system for controlling scrambling and selective, remote descrambling of television signals.

System zur Verschlüsselung und Verteilung eines Schlüsselsignals zur gesteuerten Verschlüsselung und selektiven empfängerseitigen Entschlüsselung von Fernsehsig

Systeme de cryptage et de distribution d'un signal de cryptage pour cryptage commande et decryptage selectif a distance de signaux de television.

PATENT ASSIGNEE:

M/A-COM GOVERNMENT SYSTEMS, INC., (773980), 3033 Science Park Road, San Diego California 92121, (US), (applicant designated states: BE;DE;FR;GB;IT;NL;SE)

CABLE/HOME COMMUNICATION CORP., (890530), 6262 Lusk Boulevard, San Diego California 92121, (US), (applicant designated states: BE;DE;FR;GB;IT;NL;SE)

INVENTOR:

Gilhousen, Klein S., 4039 Calgary Avenue, San Diego California 92122, (US)

Newby, Charles F., Jr., 1530 Norran Street, El Cajon California 92021, (US)

Karl E. Moerder, 13360 Whitewater Drive, Poway California 92064, (US)

LEGAL REPRESENTATIVE:

Blatchford, William Michael et al , Withers & Rogers 4 Dyer's Buildings
Holborn, London EC1N 2JT, (GB)

PATENT (CC, No, Kind, Date): EP 127381 A1 841205 (Basic)
EP 127381 B1 880406

APPLICATION (CC, No, Date): EP 84303320 840516;

PRIORITY (CC, No, Date): US 498800 830527

DESIGNATED STATES: BE; DE; FR; GB; IT; NL; SE

INTERNATIONAL PATENT CLASS: H04N-007/16;

ABSTRACT EP 127381 A1

Key signal encryption and distribution system for controlling scrambling and selective, remote descrambling of television signals.

A system and method for scrambling and selectively descrambling television signals that are transmitted to subscribers' descramblers in a subscription television system. A working key signal is generated by processing an "initialization vector" signal in accordance with the DES algorithm upon the algorithm being keyed by either a common category key signal or a signal having a predetermined relationship to the common category key signal. A unique encryption keystream is generated by processing the initialization vector signal in accordance with the DES algorithm upon the algorithm being keyed by the working key signal. A television signal is scrambled in accordance with the unique encryption keystream to provide a scrambled television signal. A plurality of unique encrypted category key signals individually addressed to different selected subscribers' descramblers are generated by processing the initial common category key signal in accordance with the DES algorithm upon the algorithm being keyed by a plurality of different "unit key" signals unique to different selected descramblers. The scrambled television signal, the initialization vector signal, and the plurality of encrypted category key signals are broadcast to the descramblers. A corresponding tier of DES algorithms are employed at the descrambler to reproduce the encryption keystream; and the TV signal is descrambled in accordance therewith. Each descrambler has its unique unit key signal stored in a secure memory for use in **reproducing the common category key** signal when the descrambler is addressed by its unique encrypted category key signal.

ABSTRACT WORD COUNT: 258

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 841205 A1 Published application (A1with Search Report
;A2without Search Report)

Examination: 850807 A1 Date of filing of request for examination:
850529

Change: 860709 A1 Inventor (change)

Examination: 860716 A1 Date of despatch of first examination report:
860603

*Assignee: 871021 A1 Applicant (transfer of rights) (change):
M/A-COM GOVERNMENT SYSTEMS, INC. (773980) 3033
Science Park Road San Diego California 92121
(US) (applicant designated states:
BE;DE;FR;GB;IT;NL;SE), CABLE/HOME COMMUNICATION
CORP., (890530) 6262 Lusk Boulevard San Diego
California 92121 (US) (applicant designated
states: BE;DE;FR;GB;IT;NL;SE)

Grant: 880406 B1 Granted patent

Oppn None: 890329 B1 No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

...ABSTRACT descrambler has its unique unit key signal stored in a secure memory for use in **reproducing the common category key** signal when

the descrambler is addressed by its unique encrypted category key signal.

18/5,K/15 (Item 15 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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01009621

**SOFTWARE AND SYSTEMS FOR FACILITATING E-BUSINESS
LOGICIEL ET SYSTEMES DE COMMERCE ELECTRONIQUE**

Patent Applicant/Assignee:

LINKWARE SYSTEMS B V, Kampweg 27, NL-3981 EX Bunnik, NL, NL (Residence),
NL (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

KLYHN Henning, Kampweg 27, NL-3981 EX Bunnik, NL, NL (Residence), NL
(Nationality), (Designated only for: US)

Legal Representative:

de HOOP Eric (agent), Octrooibureau Vriesendorp & Gaade, P.O. Box 266,
NL-2501 AW The Hague, NL,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200338714 A2 20030508 (WO 0338714)

Application: WO 2002NL702 20021104 (PCT/WO NL0200702)

Priority Application: US 2001335298 20011102

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO
RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/60

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 20442

English Abstract

The invention pertains to a method for managing and executing business transactions in a product/service chain, wherein at least one closed user group is defined by installing, in memory means on first remote computer means, a list of trusted business partners forming said product/service chain, each business partner maintaining, on further remote computer means, at least one software system and at least one database for managing internal business processes, like resource management, contract/proposal management, logistics management, financial management, etcetera, wherein said transactions are managed and executed by management software obtaining data from several databases of several business partners.

French Abstract

L'invention concerne un procede de gestion et de mise en oeuvre d'operations commerciales dans une filiere de production/service. Ce procede consiste a former au moins un groupe ferme d'usagers a partir d'une liste de partenaires commerciaux de confiance formant ladite filiere de production/service et a enregistrer ce groupe dans la memoire d'un premier dispositif informatique a distance. Chaque partenaire commercial utilise au moins un systeme logiciel et au moins une base de donnees mis en oeuvre sur d'autres dispositifs informatiques a distance,

destines a la gestion des procedes administratifs internes, tels que la gestion des ressources, la gestion des marches/propositions, la gestion logistique, la gestion financiere, etc. Les operations sont gerees par un logiciel de gestion alimente par les bases de donnees des partenaires commerciaux.

Legal Status (Type, Date, Text)

Publication 20030508 A2 Without international search report and to be republished upon receipt of that report.

Fulltext Availability:

Claims

Claim

... according to claim 14 or 15, wherein the metascript comprises a security code comprising a **master key** , a **public key** , a **session key** and an access tag; wherein a remote computer randomly refreshes the **public key** .

17 Method for managing and- executing a chain of business transactions in a product/service...comprising encrypted links to data on remote computers, wherein the links are encrypted using a **master key** , a **public key** ,, a **session key** and a configuration access tag,

23 Datastructure according, to claim 22, wherein the public key...

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: B41J-002/07

International Patent Class: B41J-002/17; G06F-003/12

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 140412

English Abstract

An image printing apparatus includes a print head for printing images. A microcontroller that includes a wafer substrate is provided. Processor circuitry is positioned on the wafer substrate. Print head interface circuitry is also positioned on the wafer substrate and is connected between the processor circuitry and the print head. The print head interface circuitry is configured to facilitate communication between the processor circuitry and the print head. Bus interface circuitry that is discrete from the print head interface circuitry is connected to the processor circuitry so that the processor circuitry can communicate with devices other than the print head via a bus.

French Abstract

L'invention concerne un appareil d'impression d'images comprenant une tete d'impression permettant d'imprimer des images, ainsi qu'une micro-unite de commande comprenant un substrat de plaquette. Un ensemble de circuits de processeur est positionne sur le substrat de plaquette. Un ensemble de circuits d'interface de la tete d'impression est egalement positionne sur le substrat de plaquette et est connecte entre l'ensemble de circuits du processeur et la tete d'impression. L'ensemble de circuits d'interface de la tete d'impression est concu pour faciliter la communication entre l'ensemble de circuits du processeur et la tete d'impression. Un ensemble de circuits d'interface bus, qui est distinct de celui de la tete d'impression, est connecte a l'ensemble de circuits du processeur, de maniere que celui-ci puisse communiquer avec d'autres dispositifs que la tete d'impression, via un bus.

Legal Status (Type, Date, Text)

Publication 20030220 A1 With international search report.

Examination 20030417 Request for preliminary examination prior to end of 19th month from priority date

Fulltext Availability:

Detailed Description

Detailed Description

... VLIW Input FEFO 78 is the Image Sensor Interface (ISI 83). The ISI 83 takes **data** from the Image Sensor and writes it to the FIFO. A VLIW process takes it...and then combined with the other PU e.g 178 status bits to update the **Common** Status Register 200. The microcode for determining the output status bit takes the following form...205, for multiple types of interpolations and multiply/accumulates Barrel Shift block 206, for shifting **data** as required In block 207, for accepting data from the external crossbar switch 183 Out...

DIALOG(R)File 349:PCT FULLTEXT
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00876811 **Image available**

SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR DEVICE, OPERATING SYSTEM,
AND NETWORK TRANSPORT NEUTRAL SECURE INTERACTIVE MULTI-MEDIA MESSAGING
SYSTEME, PROCEDE ET PRODUIT PROGRAMME D'ORDINATEUR POUR APPAREIL, SYSTEME
D'EXPLOITATION ET MESSAGERIE MULTIMEDIA INTERACTIVE RESEAU, NEUTRE ET
SECURISEE

Patent Applicant/Assignee:

STORYMAIL INC, 15729 Los Gatos Boulevard, Los Gatos, CA 95032, US, US
(Residence), US (Nationality)

Inventor(s):

ILLOWSKY Daniel H, 21363 Dexter, Cupertino, CA 95014, US,
WENOCUR Michael L, 4057 Amaranta Avenue, Palo Alto, CA 94306, US,
BALDWIN Robert W, 990 Amarillo Avenue, Palo Alto, CA 94303, US,
SAXBY David B, 14946 Granite Court, Saratoga, CA 95070, US,

Legal Representative:

ANANIAN R Michael (et al) (agent), Flehr Hohbach Test Albritton & Herbert
LLP, 4 Embarcadero Center, Suite 3400, San Francisco, CA 94111-4187, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 200210962 A1 20020207 (WO 0210962)

Application: WO 2001US23713 20010727 (PCT/WO US0123713)

Priority Application: US 2000627357 20000728; US 2000627358 20000728; US
2000627645 20000728; US 2000628205 20000728; US 2000706606 20001104; US
2000706609 20001104; US 2000706610 20001104; US 2000706611 20001104; US
2000706612 20001104; US 2000706613 20001104; US 2000706614 20001104; US
2000706615 20001104; US 2000706616 20001104; US 2000706617 20001104; US
2000706621 20001104; US 2000706661 20001104; US 2000706664 20001104; US
2001271455 20010225; US 2001912715 20010725; US 2001912936 20010725; US
2001912905 20010725; US 2001912773 20010725; US 2001912885 20010725; US
2001912860 20010725; US 2001912941 20010725; US 2001912901 20010725; US
2001912772 20010725

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD

SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 169299

English Abstract

System, method, signal, operating model, and computer program for
electronic messaging. Systems and method for providing security for
communication of electronic messages, interactive sessions, software
downloads, software upgrades, and other content from a source to a
receiving device as well as signals used for such communications (304,
309, 308, 324, 342, 338, 334, 330, 326). Systems, methods, signals,
device architectures, data formats, and computer program structures for
providing authentication, integrity, confidentiality, non-repudiation,
replay protection, and other security properties while minimizing the
network (306) bandwidth, computational resources and manual user

interactions (314) required to install, enable, deploy and utilize these security properties. System, device, method, computer program, and computer program product for searching and selecting data and control elements in message procedural/data sets for automatic and complete portrayal of message to maintain message intent.

French Abstract

Système, procédé, signal, modèle opératoire et programme d'ordinateur pour messagerie électronique. Systèmes et procédé permettant de sécuriser la communication de données de messages électroniques, sessions interactives, téléchargements de logiciels, mises à jour de logiciels et autres contenus d'une source à un appareil récepteur ; signaux utilisés pour ce type de communication (304, 309, 308, 324, 342, 338, 334, 330, 326). Systèmes, procédés, signaux, architectures d'appareils, formats de données et structures de programmes d'ordinateur assurant l'authentification, l'intégrité, la confidentialité, la non-repudiation, la protection contre la réinsertion ainsi que d'autres propriétés de sécurité tout en réduisant la bande passante du réseau (306), ressources informatiques et interactions manuelles de l'utilisateur (314) requises pour l'installation, l'activation, le déploiement et l'utilisation de ces propriétés de sécurité. Système, appareil, procédé, programme d'ordinateur et produit programme d'ordinateur permettant de rechercher et de sélectionner des éléments de donnée et de commande dans des procédures relatives aux messages et des ensembles de données pour obtenir une représentation automatique et complète du message et préserver l'intention du message.

Legal Status (Type, Date, Text)

Publication 20020207 A1 With international search report.

Publication 20020207 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20030116 Request for preliminary examination prior to end of 19th month from priority date

Fulltext Availability:

Claims

Claim

... using Signed-Inside-Enveloped-Data to provide the software signing, and using a fixed Recipient **public key** to which all receiving software knows the private key for the encryption, rather than providing ...

...89, wherein the Signed-inside-Enveloped-Data primitive provides a component for setting up a **session key** with a new entity for which the Sender knows the Recipient's **public key**. 117.The method in claim 116, wherein the Sender knows the recipient's public key by any one of: (i) a plain text request of the certificate of the Recipient, (ii)...

...primitive with the appropriate keys. 123. The method in claim 89, wherein authentication for a **session key** is provided by using the Encrypted-Data primitive with values that are produced by the...Secure Response message protocol is implemented using the Signed-Inside-Enveloped-Data primitive with a **public key** of the Recipient that is included inside the message to which this is a response ...

...133, wherein the message includes a Certificate and the Signed-Inside-Enveloped-Data primitive with a **public key** of the Recipient is inside the Certificate that is verified by the Sender of the

key and destination address and Client's public and private key and certificate chain from one...

...the Entity in order to respond to a message from the Entity, the Entity's **public key** and matching destination address of the Entity from a trusted storage means;
B. extracting, by...

...the Entity in order to respond to a message from the Entity, the Entity's **public key** and matching destination address of the Entity from a trusted storage means;
B. extracting, by ...for the received response message. 254. The method in Claim 252, wherein the Entity's **public key** comprises an RSA or RSA-based key. 255. The method in Claim 252, wherein the...

...destination address comprises an e-mail address. 256. The method in Claim 252, wherein the **public key** and matching destination address have been verified previously using a digital signature (verified with a trusted **public key**) or cryptographic checksum (verified with a trusted key derived from a **Master Key** or **Session Key** or Message Key). 257. The method in Claim 252, wherein the trusted source or storage ...

...the method comprising the steps of. extracting, by the Client, information including the Entity's **public key** and matching destination address and the Client's public and private key and certificate chain...

...Compact Certificate as explained earlier, or chain of Compact Certificates leading to a trusted root **public key** . 270. The method of claim 252, wherein the trusted source or storage means comprises a Compact Certificate as explained earlier, or chain of Compact Certificates leading to a trusted root **public key** . 271. A hardware architecture neutral executable program structure for execution in a processor,
said program...

18/5,K/24 (Item 24 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00864440 **Image available**

METHOD AND APPARATUS FOR ENHANCING NETWORK SECURITY PROTECTION SERVER PERFORMANCE

PROCEDE ET APPAREIL DESTINES A AMELIORER LES PERFORMANCES DU SERVEUR DE PROTECTION DE SECURITE DE RESEAU

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Legal Representative:

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Mill Road, Palo Alto, CA 94304-1050, US,
Patent and Priority Information (Country; Number, Date):
Patent: WO 200197443 A2-A3 20011220 (WO 0197443)
Application: WO 2001US18878 20010612 (PCT/WO US0118878)
Priority Application: US 2000211023 20000612; US 2000211031 20000612
Parent Application/Grant:
Related by Continuation to: US 2000211023 20000612 (CIP); US 2000211031
20000612 (CIP); US Not furnished (CIP)
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: H04L-009/30
Publication Language: English
Filing Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 12621

English Abstract

Presented is a method and system for improving the efficiency of network security protections communication protocols such as Secure Socket Layer ("SSL") using enhanced Rivest-Shamir-Adleman ("RSA") encryption and decryption techniques. During the establishment of the initial handshake of SSL communications, where a client is coupled to a server, the server generates a RSA public/private key pair. The public key is formed using two distinct prime numbers. By reducing the size of these prime numbers and arriving at the decrypted message using the Chinese Remainder Theorem, the efficiency of establishing a secure communications session is increased. Likewise if during generation of the public key, the prime numbers possess a mathematical relationship to the public key such that the prime numbers on the order of a third of the size of the public key then the efficiency of establishing the initial handshake is again improved.

French Abstract

L'invention concerne un procede et un systeme destines a ameliorer l'efficacite du protocole de communication des protections de securite de reseau, tel que le protocole SSL, au moyen de techniques de chiffrement et de dechiffrement RSA. Pendant l'etablissement d'une liaison initiale de communication SSL, dans laquelle un client est relie a un serveur, le serveur genere une paire de cles RSA publique/privée. La cle publique est constituee de deux nombres premiers distincts. En reduisant la taille de ces nombres premiers et en obtenant le message dechiffre au moyen du theoreme chinois du reste, l'efficacite d'etablissement d'une session de communication securisee est augmentee. De meme, si pendant la generation de la cle publique, les nombres premiers possèdent une relation mathematique avec la cle publique telle que les nombres premiers sont de l'ordre d'un troisieme de la taille de la cle publique, alors l'efficacite d'etablissement de la liaison initiale est a nouveau amelioree.

Legal Status (Type, Date, Text)

Publication 20011220 A2 Without international search report and to be republished upon receipt of that report.

Search Rpt 20030508 Late publication of international search report
Republication 20030508 A3 With international search report.

Fulltext Availability:
Claims

Claim

... are combined using the
Chinese Remainder Theorem, wherein computational efficiency is improved;
and
establishing a **common session key** between the web server and the
client using R.)i

10 The method of claim...combined using the Chinese
5 Remainder Theorem, wherein computational efficieney is improved and
establish a **common session key** between the web server and the
client
using R.

30 An electromagnetic medium, comprising executable...

...are combined using the Chinese
Remnainder Theorem, wherein. computational efliciency is improved; and
establish a **common session key** between the web server and the
client
using R.
0

31 A computer-readable medium...

facility for ensuring...

18/5,K/26 (Item 26 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00762353 **Image available**

WEB ENVIRONMENT ACCESS CONTROL

CONTROLE D'ACCES DANS UN ENVIRONNEMENT WEB

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Patent and Priority Information (Country, Number, Date):

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Application: WO 2000GB2049 20000606 (PCT/WO GB0002049)

Priority Application: GB 9913165 19990608

Designated States: CA GB US

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Main International Patent Class: G06F-001/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 6056

English Abstract

An access control system and method in a web environment having pre-encrypted files on a web server decryption keys provided to authorised users and a trusted user proxy for controlling file access and decrypting files received, in which files are encrypted using a file key (FK), and the FK is encrypted using a Group Encryption Key (GEK), and the user proxy has a Group Decryption Key (GDK) to decrypt the FK and the file. Each encrypted file is labelled with an Access Control Expression (ACE) which indicates which users or groups of users are authorised to decrypt and observe the file; this provides a secure client server system having pre-encrypted documents on the web-server, released to a decryption proxy on the client side, which controls access to, and decrypts the documents the client is allowed to see.

French Abstract

L'invention concerne un dispositif et un procede de controle d'accès dans un environnement web contenant des fichiers precryptes sur un serveur web, des clés de cryptage fournies aux utilisateurs autorises et un utilisateur de confiance mandate pour controler l'accès aux fichiers et decrypter les fichiers recus. Les fichiers sont cryptes au moyen d'une clé de fichier, FK, laquelle est chiffree au moyen d'une clé de cryptage de groupe, GEK. L'utilisateur mandate possede une clé de decryptage de

groupe, GDK, pour dechiffrer la FK et le fichier. Une etiquette d'expression de controle d'accès (ACE) est apposee sur chaque fichier crypte indiquant les utilisateurs ou groupes d'utilisateurs habilites a decrypter et a consulter le fichier, ce qui permet de disposer d'un systeme client-serveur securise dont les documents precryptes sur le serveur web sont liberes a l'attention d'un mandataire de decryptage du cote client, qui controle l'accès aux documents et qui les decrypte a l'attention du client habilite a les consulter.

Legal Status (Type, Date, Text)

Publication	20001214	A2 Without international search report and to be republished upon receipt of that report.
Examination	20010222	Request for preliminary examination prior to end of 19th month from priority date
Search Rpt	20020606	Late publication of international search report
Republication	20020606	A3 With international search report.

Fulltext Availability:

Claims

Claim

... files by means of a File Key (FK), encrypting the FK by means of a **Group Encryption Key**, and providing only the limited number of groups with a means of decrypting the FK...

...header containing information including
the ACE
enabling authorised users to decrypt the encrypted file;
a **group encryption key** (GEK) is generated for defined groups of authorised users;
a GEK encrypts the FK and...

...Group ID, the FK in GEK, and the ACE;
delivering to the users proxy a **group decryption key** (GDK)
user retrieves file and proxy examines incoming encrypted file ACE in the header to see how or if decryption can take place;
users **group decryption key** (GDK) is used to decrypt the file key (FK) from the header;
the file is...

...must be considered untrustworthy, could gain access to all data subsequently released by replacing the **group encryption key** with one for which it knows the corresponding **group decryption key**. Preferably the system uses asymmetric keys. The advantage of asymmetric cryptography is that it gives...and this is used to encrypt the file. This key is called the file's **data key**. The resulting encrypted data is prepended with a header before being released to the web...

...The header contains the information that allows legitimate recipients to decrypt the encrypted data. An **asymmetric key pair** is generated for each group in the access control scheme. This **key pair** is used to distribute a file's **data key** to those who are permitted to observe the file. One key of the pair is...

...In the simple case where the ACE is just a single group, the file's **data key** is encrypted using the group's encryption key. The result is placed in the header...

...with the file's label, as shown in figure 1. The way in which the **data key** is encrypted in general is explained below. A file's header

contains the file's ACE, the file's **data key** encrypted in a way determined by the file's ACE, and the file's data. The function for encrypting the **data key** of a file D whose ACE is A is denoted $H(D,A)$, and is...

... $H(D, (x|y) \& z) = H(D, (x \& z) (y \& z))$

where

D is the file **data key**

G is a simple ACE of one group

x, y and z are arbitrary ACEs...

...key associated with

group G

To observe a file, it must be decrypted using its **data key**. This can be

recovered from the file's header if certain group decrypting keys are known. The ACE determines which combinations of group decrypting keys permit the **data key** to be recovered. The function that is used to recover a **data key** from the encrypted data E and ACE A in the header is denoted $R(E...)$

...observe a file, the ACE in the header is examined to determine how the encrypted **data key** should be recovered. In the simple case, where the label is just a single group, the group's decryption key is used to recover the file's **data key** from the header. Once the **data key** is obtained, the file's data can be decrypted. If the group's decryption key ...

...the browser knows how to handle the data in the normal way. Most applications of **public key** cryptography assume that a user's application software can be trusted ...give the recipient access to all files released to the group. Similarly, a file's **data key** is protected, otherwise this would give the recipient access to the particular file. However, once...

...of controlling the release of data while using untrustworthy application software. Protecting a file's **data key** from disclosure also affords extra protection to the **group decryption key**. A user in possession of a document key, and the same key encrypted with a **group encryption key**, has the potential to mount a brute force attack to obtain the **group decryption key**. With a single document key, the user has only a small amount of information on...

...must be considered untrustworthy, could gain access to all data subsequently released by replacing the **group encryption key** with one for which it knows the corresponding **group decryption key**. Note that, having protected both the encrypting and decrypting keys from disclosure and modification, it...

...key can be changed easily. It is simply a matter of recovering the original file **data key**, using the decrypting key of some group which can access it, decrypting the data, and...

...user's workstation. One way of achieving this is to make use of **public key** technology. Each proxy would be identifiable by a distinguished name and associated **public key**, most likely wrapped together into an identity certificate. The proxy would hold the complementary private key in private local storage. An administrator wishing to place a consumer **group decryption key** into a proxy would obtain the identity certificate corresponding to the proxy. After

verifying the certificate, the **public . key** contained within it can be used to encrypt a **group key** for forwarding to the proxy. Only a holder of the proxies' private key can unwrap the **group key**. At this point the message containing the hidden **group key** can be presented to the user of the system by, for example, electronic messaging. Once...

...has been inserted into the proxy, the proxy can unwrap the message to reveal the **group key** and place it in private storage. Additional fields could be associated with the key, such...

...the proxy could generate its own private key at installation time, and export the corresponding **public key** for signature by a certification authority. While the ultimate solution is to distribute keys through a **public key** infrastructure, as discussed above, a lighter-weight alternative is possible using the security mechanisms of...

18/5,K/27 (Item 27 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00745762 **Image available**

MULTI-NODE ENCRYPTION AND KEY DELIVERY

CHIFFREMENT MULTINOEUD ET REMISE DE CLES

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200059154 A1 20001005 (WO 0059154)

Application: WO 2000EP1895 20000306 (PCT/WO EP0001895)

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(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Main International Patent Class: H04L-009/08

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 6441

English Abstract

The common encryption of content material is provided for decryption at a plurality of destination devices, each destination device having a unique private key of a public-private key pair. A multiple device key exchange is utilized to create a session key for encrypting the content material that is based on each of the public keys of the plurality of destination devices. The content material is encrypted using this session key. A partial key is also created for each of the intended destination devices that relies upon the private key of the destination device to form a decryption key that is suitable for decrypting the encrypted content material. The encrypted content material and the corresponding partial key are communicated to each destination device via potentially insecure

means, including broadcast over a public network. Each destination device decrypts the encrypted content material using the decryption key that is formed from its private key and the received partial key. Including or excluding the public key of selected destination devices in the creation of the session key effects selective encryption.

French Abstract

L'invention concerne le chiffrement ordinaire d'un contenu destine au decryptage au niveau de plusieurs dispositifs destinataires, chaque dispositif possedant une cle privee unique d'une paire de cles privees-publiques. On utilise un echange de cles du dispositif multiple pour creer une cle de session permettant de chiffrer le contenu qui est fonde sur chacune des cles publiques de plusieurs dispositifs destinataires. Le contenu est chiffre a l'aide de cette cle de session. On cree egalement une cle partielle pour chacun des dispositifs destinataires souhaitees qui depende de la cle privee du dispositif destinataire pour constituer une cle de decryptage appropriee au decryptage du contenu chiffre. Ce dernier et la cle partielle correspondante sont communiquees a chaque dispositif destinataire par le biais d'un dispositif potentiellement non protege, y compris la diffusion sur un reseau public. Chaque dispositif destinataire decrypte le contenu code a l'aide de la cle de decryptage qui est constituee a partir de sa cle privee et de la cle partielle recue. Inclure ou exclure la cle publique des dispositifs destinataires selectionnees lors de la creation de la cle de session agit sur le chiffrement selectif.

Legal Status (Type, Date, Text)

Publication 20001005 A1 With international search report.

Fulltext Availability:

Claims

Claim

- ... key (25 1a-281a) of a public-private key pair, the method comprising:
 - creating a **session key** (22 1) based on a combination of each public key (25 1 a
 - 281 a...
- ...each partial key being configured to provide a decryption key (255-285) corresponding to the **session key** (221) when combined with the private key (25 I bI 0 281b) of each corresponding destination device and a **public group key** (212a), encrypting the content material (20 1) based on the **session key** (22 1) to create encrypted content material (23 1), and communicating the encrypted content material...
- ...a) of the plurality of destination devices (250-280), the plurality of keys including:
 - a **session key** (221) for encrypting the content material (201), and
 - a plurality of partial keys (225-228...
- ...each partial key being configured to provide a decryption key (255-285) corresponding to the **session key** (22 1) when combined with the private key (25 1b2 8 1b) of each corresponding destination device and a **public group key** (212a), and an encrypter (230) that is configured to encrypt the content material (201) based on the **session key** (22 1) to create encrypted content material (23 1).
 - . The source device (21 0) of...
- ...one destination device (250).

10 The source device (21 0) of claim 9, wherein the **session key** (221) is further based on a source device private key (212b) corresponding to the **public group key** (212a), and the transmitter (240) is further configured to communicate the **public group key** (212a) to the at least one destination device (250).

11 The source device (21 0)...a second key (225), the encrypted content material (23 1) being encrypted based on a **session key** (22 1) that is based on a plurality of public keys (25 1 a-28 I a), the first key (212a) corresponding to a **public group key** (212a), and the second key (225) being based on a subset (26 1 a-28...

...first key (212a), the second key (225), and a private key (25 1b) of a **public-private key pair** whose corresponding **public key** (25 1 a) is included in the plurality of public keys (25 1 a28 1...

18/5,K/28 (Item 28 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00518261 **Image available**

CRYPTOGRAPHIC KEY-RECOVERY MECHANISM

MECANISME D'EXTRACTION DE CLE CRYPTOGRAPHIQUE

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Inventor(s):

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BOZOKI Eva,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9949613 A1 19990930

Application: WO 99US3665 19990219 (PCT/WO US9903665)

Priority Application: US 9875330 19980220

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD
MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US
UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE
CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN
GW ML MR NE SN TD TG

Main International Patent Class: H04L-009/08

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4615

English Abstract

Nodes I, I=1, N are communicating with each other encrypted. They each have static private (Si) and public (Pi) keys, which never change and dynamic private (Sidyn) and public (Pidyn) keys, which are functions of time (t). A key recovery authority (KRA) also has static private (SKRA) and public (PKRA) keys, which never change. The KRA exchanges static public keys with each of the nodes, thus develops a static common key (session key), KKRA,i, with each of them using, for example, the Diffie-Hellman protocol. The KRA maintains a list of the static public

keys of all nodes. Thus, the (static) session key with any of the nodes can be "recovered" at any time. When two nodes, say i and j , exchange their dynamic public keys (encrypted with their static session key $K_{stij}(t)$), then each one attaches its dynamic secret key, encrypted with the static session key between it and the KRA. A time stamp is also included. With knowledge of the session key, $KKRA,i$, which can be recovered from the KRA, the dynamic private keys of each node, $Sidyn(t)$, can be recovered (and $Pidyn(t)$ calculated) from a recording of any session (70). From $Sidyn(t)$ and $Pjdyn(t)$ one can calculate the dynamic session key between the two nodes ($Ki,jdyn(t)$) (75). However, all other parties are still protected since their dynamic public keys are exchanged encrypted. Note that all nodes are still protected, and their session concealed, because their private keys are encrypted.

French Abstract

Les noeuds I , $I=1, N$ communiquent entre eux de maniere cryptee. Chacun possede des cles privee (Si) et publique (Pi) statiques, qui ne changent jamais, et des cles privee ($Sidyn$) et publique ($Pidyn$) dynamiques, qui sont fonction du temps (t). Une autorite d'extraction de cle (KRA) possede egalement des cles privee ($SKRA$) et publique ($PKRA$) statiques, qui ne changent jamais. L'autorite d'extraction de cle echange les cles publiques statiques avec chacun des noeuds, ce qui developpe une cle commune statique (cle de session) ($KKRA,i$), chaque noeud utilisant, par exemple, un protocole de Diffie-Hellman. L'autorite d'extraction conserve une liste des cles publiques statiques de tous les noeuds. La cle de session (statique) avec n'importe quel noeud peut donc etre "extraite" a tout moment. Quand deux noeuds, i et j par exemple, echangent leurs cles publiques dynamiques (cryptees avec leur cle de session statique ($K_{stij}(t)$), chacun attache sa cle secrete dynamique, cryptee avec la cle de session statique entre lui et l'autorite d'extraction. Une indication de date et d'heure est ajoutee. En connaissant la cle de session ($KKRA,i$), qui peut etre extraite a partir de l'autorite d'extraction, il est possible d'extraire les cles privees dynamiques de chaque noeud ($Sidyn(t)$) (et de calculer $Pidyn(t)$) a partir d'un enregistrement de n'importe quelle session (70). On peut aussi calculer la cle de session dynamique entre les deux noeuds ($Ki,jdyn(t)$) a partir de $Sidyn(t)$ et de $Pjdyn(t)$ (75). Cependant, toutes les autres parties sont encore protegees puisque leurs cles publiques dynamiques sont echangees de maniere cryptee; en particulier, tous les noeuds sont proteges et leurs sessions cachees, puisque leurs cles privees sont cryptees.

Fulltext Availability:

Claims

Claim

- ... public key of each of said first and second nodes stored therein; determining a static **common session key**, 'C'KRAA, between said KRA and said first
1 0 nodes, based on said P...
- ...node, ($SBd''(T)$), based on said
EKW&R,lf,B) ($SBI(T)$);
determining a dynamic **public key** of said second node, $PBdy'(T)$, based
on said
2 0 $SBdy'(T)$; and
determining said dynamic **common key**, $Kd'',@,B(T)$, based on said
 $SAdI'(T)$ and said $PB'@'%$ for decrypting messages transmitted...
- ...retrieving a dynamic private key, $Sady')$ from said first node which is
encrypted with a **common session key** between said first node and a
key recovery authority (KRA) third

party node KKRAA;
wherein said Sad" encrypted with said KKR&A is utilized for decrypting
said dynamic **public key** of said first node.

5 The method of claim 4, wherein said step of determining...

...and
a dynamic private key, Sady') from said first node which is encrypted
with a **common session key** between said first node and a key
recovery authority (KRA) third party node
0 KKR&A)
wherein said Sad" encrypted with said KKR&A is utilized for decrypting
said dynamic **public key** of said first node.

9 The message of claim 8, wherein said first node comprises...

...first node, PA", with a static private
key of said KRA device,
determining a static **common session key**, K!@MAA, between said KRA
device
andsaidfirstnode,basedonsaidPA"andSKRA',
retrieving a first exchange message, EKmRxA...

...second node, (SBdyn(T)), based on
said EKOaL,,B) (SB"yn(T)),
determining a dynamic **public key** of said second node, P,3"'(T), based
on
2 0 said SBdyn(T), and
determining said dynamic **common key**, Kdy"XB(T), based on said
SAdyn(T) and said PBdI', for decrypting messages transmitted...

18/5,K/29 (Item 29 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00372598 **Image available**

NETWORK SECURITY DEVICE

DISPOSITIF DE SECURITE DE RESEAU

Patent Applicant/Assignee:

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Detailed Description

Claims

Fulltext Word Count: 6994

English Abstract

A network security device (10) is connected between a protected client (12) and a network (100). The network security device (10) negotiates a session key with any other protected client. Then, all communications between the two clients are encrypted. The inventive device is self-configuring and locks itself to the IP address of its client (12). Thus, the client (12) cannot change its IP address once set and therefore cannot emulate the IP address of another client. When a packet is transmitted from the protected host, the security device (10) translates the MAC address of the client to its own MAC address before transmitting the packet into the network. Packets addressed to the host, contain the MAC address of the security device. The security device (10) translates its MAC address to the client's (12) MAC address before transmitting the packet to the client (12).

French Abstract

L'invention a trait a un dispositif de securite de reseau (10) connecte entre un client protege (12) et un reseau (100). Ce dispositif (10) negocie une clef de session avec n'importe quel autre client protege. Toutes les communications entre les deux clients sont alors cryptees. Le dispositif selon l'invention s'auto-configue et verrouille de lui-meme l'adresse IP (Protocole Internet) de son client (12). De la sorte, ce dernier est dans l'impossibilite de modifier son adresse IP, une fois celle-ci arrete, et, partant, ne peut emuler l'adresse IP d'un autre client. Lorsque l'hote protege transmet un paquet, le dispositif de securite (10) transforme, en la traduisant, l'adresse MAC du client en sa propre adresse MAC avant d'envoyer le paquet sur le reseau. Les paquets adresses a l'hote contiennent l'adresse MAC du dispositif de securite. Celui-ci (10) transforme, en la traduisant, sa propre adresse MAC en adresse MAC du client (12) avant d'envoyer le paquet au client (12).

Fulltext Availability:

Claims

Claim

... in said network.

19 The method of claim 18 wherein said step of negotiating a **common session key** comprises the steps of
(1) at said network security device, using a static **public key** of said second node, encrypting a dynamic

20 **public key** of said first node and transmitting said dynamic **public key** of said first node to said second node,

(2) receiving from said second node a dynamic **public key** of said second node encrypted with a static **public key** of said first node and decrypting said dynamic **public key** of said second node with a static secret key of said first node at said network security device,

(3) at said network security device, generating said **common session key** from a dynamic secret key of said first host and said dynamic **public key** of said second node.

20 The method of claim 19 wherein said first node maintains...

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